DAND Inferential Statistics

Test a Perceptual Phenomenon Final Project

May 12, 2015

Final Review by Udacity Team

Meets Specifications

Question 1: Identify variables in the experiment

Question response correctly identifies the independent and dependent variables in the experiment.

Question 2: Establish a hypothesis and statistical test

Null and alternative hypotheses are clearly stated in words and mathematically. Symbols in the mathematical statement are defined.

I find it very intresting that you exploring the non trivial approach. However, since your experience show that the (μc*1.6)=μc, perhaps it would also make sense to use the half way, for example (μc*1.3)-μc.?

The Expression of the Null and alternative hypothesis are accurate. However, in the explenation of the null hypothesis it is not alwayes clear if the hypothesis concern about the sample or the population. For example "...it will take 1.6 times longer for the participants to say..." and "...Ho will be measured in Difference (D) between the two samples". The idea of the test is that we are using limited data (based on our samples) in order to make inferences about the populations (and the population means). We know what the sample means are, and we are trying to infer something about the population, so the null and alternative hypotheses should be concerned with the population.
http://support.minitab.com/en-us/minitab/17/topic-library/basic-statistics-and-graphs/hypothesis-tests/basics/null-and-alternative-hypotheses/

A statistical test is proposed which will distinguish the proposed hypotheses. Any assumptions made by the statistical test are addressed.

The statistical test that you choose is appropriate .

Question 3: Report descriptive statistics

Descriptive statistics, including at least one measure of centrality and one measure of variability, have been computed for the dataset's groups.

The mean, variance and standard deviation that you calculate between the conditions are accurate.

Question 4: Plot the data

One or two visualizations have been created that show off the data, including comments on what can be observed in the plot or plots.

Now that I see the figure, I tend to understand more why you push the difference further away up to 1.6 times. Well Done!!

Question 5: Perform the statistical test and interpret your results

A statistical test has been correctly performed and reported, including test statistic, p-value, and test result. The test results are interpreted in terms of the experimental task performed.

Well done for the implementation and the clear interpretation of the statistical test

Question 6: Digging deeper and extending the investigation

Hypotheses regarding the reasons for the effect observed are presented. An extension or related experiment to the performed Stroop task is provided, that may produce similar effects.